Index of Authors

Abberton, M. T. *see* Williams, T. A.
Adugna, W. and Labuschagne, M. T. Association of linseed characters and its variability in different environments, 285
Adugna, W. and Labuschagne, M. T. Cluster and canonical variate analyses in multilocation trials of linseed, 297
Agbagla-Dohnani, A., Nozière, P., Gaillard-Martinie, B., Puard, M. and Doreau, M. Effect of silica content on rice straw ruminal degradation, 183
Aharoni, Y. *see* Brosh, A.
Akimoto, M. *see* Hongo, A.
Allcroft, D. J. and Glasbey, C. A. Analysis of crop lodging using a latent variable model, 383
Al-Quraan, N. A. *see* Malkawi, H. I.
Ambo, K. *see* Takebayashi, A.
Andre, G. *see* Engel, B.
Annicchiarico, P. Breeding white clover for increased ability to compete with associated grasses, 255
Archimède, H. *see* Boval, M.
Arieli, A. *see* Brosh, A.
Asafu-Agyei, J. N. *see* Dapaah, H. K.

Barry, T. N. *see* Pinares-Patiño, C. S.
Baumont, R. *see* Garcia, F.
Becker, K. *see* Schlecht, E.
Bokhtiar, S. M., Gafur, M. A. and Rahman, A. B. M. M. Effects of *Crotalaria* and *Sesbania aculeate* green manures and N fertilizer on soil fertility and the productivity of sugarcane, 305
Bonamico, N. C. *see* Di Renzo, M. A.
Boval, M., Archimède, H., Fleury, J. and Xandé, A. The ability of faecal nitrogen to predict digestibility for goats and sheep fed with tropical herbage, 443
Brosh, A., Henkin, Z., Rothman, S. J., Aharoni, Y., Orlov, A. and Arieli, A. Effects of faecal n-alkane recovery in estimates of diet composition, 93
Bruce, D. M. *see* Summers, J. E.
Bruin, G. *see* Engel, B.
Buist, W. *see* Engel, B.

Cao, Q. D. *see* Pan, X. Y.
Carrère, P. *see* Garcia, F.
Chambers, B. J. *see* Nicholson, F. A.
Child, R. D. *see* Summers, J. E.
Cozzolino, D. and Morón, A. The potential of near-infrared reflectance spectroscopy to analyse soil chemical and physical characteristics, 65
Cubero, J. I. *see* Flores, F.

Dampney, P. M. R. *see* Nicholson, F. A.
Dapaah, H. K., Asafu-Agyei, J. N., Ennin, S. A. and Yamoah, C. Yield stability of cassava, maize, soybean and cowpea intercrops, 73
Darmani Kuhi, H., Kebreab, E., Lopez, S. and France, J. A comparative evaluation of functions for the analysis of growth in male broilers, 451
Di Renzo, M. A., Ibañez, M. A., Bonamico, N. C., Faricelli, M. E., Poverene, M. M. and Echenique, C. V. Effect of three environments on the efficiency of indirect selection in *Eragrostis curvula* (lovegrass) genotypes, 427
Doreau, M. *see* Agbagla-Dohnani, A.

Echenique, C. V. *see* Di Renzo, M. A.
Ekanayake, I. J. *see* Oyetunji, O. J.
Engel, B., Bruin, G., Andre, G. and Buist, W. Assessment of observer performance in a subjective scoring system: visual classification of the gait of cows, 317
Ennin, S. A. *see* Dapaah, H. K.
Evans, D. R. *see* Williams, T. A.

Fadiel, A., Lithwick, S., Ganji, G. and Maral, I. F. M. Structural and functional relationships shown by genomic analysis of *Capra hircus* genes, 235
Faricelli, M. E. *see* Di Renzo, M. A.
Fernández, J. A. *see* Sørensen, P.
Fleury, J. *see* Brosh, A.
Flores, F., Sánchez-Trejos, P., Cubero, J. I. and Gil, J. Variation in morphological traits in *Phaseolus vulgaris* L. from northern Spain, 435
France, J. *see* Darmani Kuhi, H.
Fujihara, T., Shem, M. N. and Hirano, T. Urinary excretion and blood plasma allantoin in lambs and young goats starved and refed with a purine-free diet, 107
Fujihara, T., Todoroki, M. and Nakamura, K. The effect of rumen protozoa on the urinary excretion of purine derivatives in goats, 101
Fujita, T. *see* Takebayashi, A.

Gafur, M. A. *see* Bokhtiar, S. M.
Gaillard-Martinie, B. *see* Agbagla-Dohnani, A.
Ganji, G. *see* Fadiel, A.
Garcia, F., Carrère, P., Soussana, J. F. and Baumont, R. The ability of sheep at different stocking rates to maintain the quality and quantity of their diet during the grazing season, 113
Gil, J. *see* Flores, F.
Glasbey, C. A. *see* Allcroft, D. J.
Gooding, M. J. *see* Ruske, R. E.

Hary, I. The impact of controlled breeding on milk production in pastoral goats in northern Kenya: an application of polynomial growth curve fitting, 357
Haynes, R. J. *see* Mokolobate, M. S.
Henkin, Z. *see* Brosh, A.
Hirano, T. *see* Fujihara, T.
Holmes, C. W. *see* Pinares-Patiño, C. S.

Hongo, A. and Akimoto, M. The role of incisors in selective grazing by cattle and horses, 469
Humphreys, M. O. *see* Wilkins, P. W.

Ibañez, M. A. *see* Di Renzo, M. A.

Johansson, E., Prieto-Linde, M. L., Svensson, G. and Jönsson, J. Ö. Influences of cultivar, cultivation year and fertilizer rate on amount of protein groups and amount and size distribution of mono- and polymeric proteins in wheat, 275
Johnson, D. E. *see* Pinares-Patiño, C. S.
Johnston, A. E. and Richards, I. R. Effectiveness of the water-insoluble component of triple superphosphate for yield and phosphorus uptake by plants, 267
Jones, S. A. *see* Ruske, R. E.
Jönsson, J.Ö. *see* Johansson, E.
Jørgensen, L. N. *see* Olesen, J. E.

Kebreab, E. *see* Darmani Kuhi, H.

Labuschagne, M. T. *see* Adugna, W.
Lassey, K. R. *see* Pinares-Patiño, C. S.
Lewis, P. D., Morris, T. R. and Perry, G. C. Effect of two opposing changes in photoperiod upon age at first egg in layer-hybrid pullets, 373
Lithwick, S. *see* Fadiel, A.
Lopez, S. *see* Darmani Kuhi, H.

McGarel, A. S. L. *see* White, E. M.
Malkawi, H. I., Al-Quraan, N. A. and Owais, W. M. Acetolactate synthase activity and chlorsulfuron sensitivity of gamma-irradiated lentil (*Lens culinaris* Medik) cultivars, 83
Marai, I. F. M. *see* Fadiel, A.
Mokolobate, M. S. and Haynes, R. J. A glasshouse evaluation of the comparative effects of organic amendments, lime and phosphate on alleviation of Al toxicity and P deficiency in an Oxisol, 409
Morgan, C. *see* Summers, J. E.
Morón, A. *see* Cozzolino, D.
Morris, T. R. *see* Lewis, P. D.
Mortensen, J. V. *see* Olesen, J. E.

Nakamura, K. *see* Fujihara, T.
Nicholson, F. A., Chambers, B. J. and Dampney, P. M. R. Nitrogen value of poultry litter applications to root crops and following cereal crops, 53
Nozière, P. *see* Agbagla-Dohnani, A.

Olesen, J. E., Jørgensen, L. N., Petersen, J. and Mortensen, J. V. Effects of rate and timing of nitrogen fertilizer on disease control by fungicides in winter wheat. 1. Grain yield and foliar disease control, 1
Olesen, J. E., Jørgensen, L. N., Petersen, J. and Mortensen, J. V. Effects of rates and timing of nitrogen fertilizer on disease control by fungicides in winter wheat. 2. Crop growth and disease development, 15
Orlov, A. *see* Brosh, A.
Osonubi, O. *see* Oyetunji, O. J.
Owais, W. M. *see* Malkawi, H. I.
Oyetunji, O. J., Osonubi, O. and Ekanayake, I. J. Contributions of an alley cropping system and arbuscular mycorrhizal fungi to maize productivity under cassava intercrop in the derived savannah zone, 311

Pan, X. Y., Wang, G. X., Cao, Q. D. and Wang, Y. F. Elevated growth redundancy and size inequality in spring wheat populations mulched with clear plastic film, 193
Perry, G. C. *see* Lewis, P. D.
Petersen, J. Nitrogen fertilizer replacement value of sewage sludge, composted household waste and farmyard manure, 169
Petersen, J. *see* Olesen, J. E.
Pinares-Patiño, C. S., Ulyatt, M. J., Lassey, K. R., Barry, T. N. and Holmes, C. W. Rumen function and digestion parameters associated with differences between sheep in methane emissions when fed chaffed Lucerne hay, 205
Pinares-Patiño, C. S., Ulyatt, M. J., Lassey, K. R., Barry, T. N. and Holmes, C. W. Persistence of differences between sheep in methane emission under generous grazing conditions, 227
Pinares-Patiño, C. S., Ulyatt, M. J., Waghorn, G. C., Lassey, K. R., Barry, T. N., Holmes, C. W. and Johnson, D. E. Methane emission by alpaca and sheep fed on Lucerne hay or grazed on pastures of perennial ryegrass/white clover or birdsfoot trefoil, 215
Poverene, M. M. *see* Di Renzo, M. A.
Prieto-Linde, M. L. *see* Johansson, E.
Puard, M. *see* Agbagla-Dohnani, A.

Rahman, A. B. M. M. *see* Bokhtiar, S. M.
Redig, P. *see* Summers, J. E.
Rhodes, I. *see* Williams, T. A.
Richards, I. R. *see* Johnston, A. E.
Rothman, S. J. *see* Brosh, A.
Ruddle, O. *see* White, E. M.
Ruske, R. E., Gooding, M. J. and Jones, S. A. The effects of triazole and strobilurin fungicide programmes on nitrogen uptake, partitioning, remobilization and grain N accumulation in winter wheat cultivars, 395

Sánchez-Trejos, P. *see* Flores, F.
Sangaré, M. *see* Schlecht, E.
Sano, H. *see* Takebayashi, A.
Sarkar, S., Singh, S. R. and Singh, R. P. The effect of organic and inorganic fertilizers on soil physical condition and the productivity of a rice–lentil cropping sequence in India, 419
Schlecht, E., Sangaré, M. and Becker, K. Seasonal variations in gastrointestinal tract fill of grazing Zebu cattle in the Sahel, 461
Shem, M. N. *see* Fujihara, T.
Singh, R. P. *see* Sarkar, S.
Singh, S. R. *see* Sarkar, S.
Sørensen, P. and Fernández, J. A. Dietary effects on the composition of pig slurry and on the plant utilization of pig slurry nitrogen, 343
Soussana, J. F. *see* Garcia, F.
Summers, J. E., Bruce, D. M., Vancanneyt, G., Redig, P., Werner, C. P., Morgan, C. and Child, R. D. Pod shatter resistance in the resynthesized *Brassica napus* line DK142, 43
Svensson, G. *see* Johansson, E.

Takebayashi, A., Sano, H., Fujita, T. and Ambo, K. Effects of cold exposure and time relative to feeding on glucose metabolism of sheep using a glucose clamp approach, 335
Todoroki, M. *see* Fujihara, T.

Ulyatt, M. J. *see* Pinares-Patiño, C. S.

Vancanneyt, G. *see* Summers, J. E.

Waghorn, G. C. *see* Pinares-Patiño, C. S.
Wang, G. X. *see* Pan, X. Y.
Wang, Y. F. *see* Pan, X. Y.
Werner, C. P. *see* Summers, J. E.
White, E. M., McGarel, A. S. L. and Ruddle, O. The influence of variety, year, disease control and plant growth regulator application on crop damage, yield and quality of winter oats (*Avena sativa*), 31
Wilkins, P. W. and Humphreys, M. O. Progress in breeding perennial forage grasses for temperate agriculture, 129
Williams, T. A., Evans, D. R., Rhodes, I. and Abberton, M. T. Long-term performance of white clover varieties grown with perennial ryegrass under rotational grazing by sheep with different nitrogen applications, 151

Xandé, A. *see* Brosh, A.

Yaduvanshi, N. P. S. Substitution of inorganic fertilizers by organic manures and the effect on soil fertility in a rice–wheat rotation on reclaimed sodic soil in India, 161
Yamoah, C. *see* Dapaah, H. K.

UMI®

PAGE 496 IS MISSING IN NUMBER ONLY

Index of Subjects

Al
A glasshouse evaluation of the comparative effects of organic amendments, lime and phosphate on alleviation of Al toxicity and P deficiency in an Oxisol (Mokolobate and Haynes), 409

Acetolactate
Acetolactate synthase activity and chlorsulfuron sensitivity of gamma-irradiated lentil (*Lens culinaris* Medik) cultivars (Malkawi *et al.*), 83

Alpaca
Methane emission by alpaca and sheep fed on Lucerne hay or grazed on pastures of perennial ryegrass/white clover or birdsfoot trefoil (Pinares-Paniño *et al.*), 215

Birdsfoot trefoil
Methane emission by alpaca and sheep fed on Lucerne hay or grazed on pastures of perennial ryegrass/white clover or birdsfoot trefoil (Pinares-Paniño *et al.*), 215

Brassica napus
Pod shatter resistance in the resynthesized *Brassica napus* line DK142 (Summers *et al.*), 43

Broilers
A comparative evaluation of functions for the analysis of growth in male broilers (Darmani Kuhi *et al.*), 451

Capra hircus
Structural and functional relationships shown by genomic analysis of *Capra hircus* genes (Fadiel *et al.*), 235

Cassava
Yield stability of cassava, maize, soybean and cowpea intercrops (Dapaah *et al.*), 73
Contributions of an alley cropping system and arbuscular mycorrhizal fungi to maize productivity under cassava intercrop in the derived savannah zone (Oyetunji *et al.*), 311

Cattle
The role of incisors in selective grazing by cattle and horses (Hongo and Akimoto), 469

Chlorsulfuron
Acetolactate synthase activity and chlorsulfuron sensitivity of gamma-irradiated lentil (*Lens culinaris* Medik) cultivars (Malkawi *et al.*), 83

Cowpea
Yield stability of cassava, maize, soybean and cowpea intercrops (Dapaah *et al.*), 73

Cows
Assessment of observer performance in a subjective scoring system: visual classification of the gait of cows (Engel *et al.*), 317

Crops
Nitrogen value of poultry litter applications to root crops and following cereal crops (Nicholson *et al.*), 53
Analysis of crop lodging using a latent variable model (Allcroft and Glasbey), 383

Crotalaria
Effects of *Crotalaria* and *Sesbania aculeate* green manures and N fertilizer on soil fertility and the productivity of sugarcane (Bokhtiar *et al.*), 305

Cultivar
Influences of cultivar, cultivation year and fertilizer rate on amount of protein groups and amount and size distribution of mono- and polymeric proteins in wheat (Johansson *et al.*), 275

Degradation
Effect of silica content on rice straw ruminal degradation (Agbagla-Dohnani *et al.*), 183

Diet
Effects of faecal n-alkane recovery in estimates of diet composition (Brosh *et al.*), 93
The ability of sheep at different stocking rates to maintain the quality and quantity of their diet during the grazing season (Garcia *et al.*), 113

Digestibility
The ability of faecal nitrogen to predict digestibility for goats and sheep fed with tropical herbage (Boval *et al.*), 443

Disease
Effects of rate and timing of nitrogen fertilizer on disease control by fungicides in winter wheat. 1. Grain yield and foliar disease control (Olesen *et al.*), 1
The influence of variety, year, disease control and plant growth regulator application on crop damage, yield and quality of winter oats (*Avena sativa*) (White *et al.*), 31

Egg
Effect of two opposing changes in photoperiod upon age at first egg in layer-hybrid pullets (Lewis *et al.*), 373

Environment
Effect of three environments on the efficiency of indirect selection in *Eragrostis curvula* (lovegrass) genotypes (Di Renzo *et al.*), 427

Eragrostis curvula
Effect of three environments on the efficiency of indirect selection in *Eragrostis curvula* (lovegrass) genotypes (Di Renzo *et al.*), 427

Faecal
Effects of faecal n-alkane recovery in estimates of diet composition (Brosh *et al.*), 93

Fertilizer
Effects of rate and timing of nitrogen fertilizer on disease control by fungicides in winter wheat. 1. Grain yield and foliar disease control Fertilizer (Olesen *et al.*), 1
Effects of rates and timing of nitrogen fertilizer on disease control by fungicides in winter wheat. 2. Crop growth and disease development (Olesen *et al.*), 15
Substitution of inorganic fertilizers by organic manures and the effect on soil fertility in a rice–wheat rotation on reclaimed sodic soil in India (Yaduvanshi), 161

Influences of cultivar, cultivation year and fertilizer rate on amount of protein groups and amount and size distribution of mono- and polymeric proteins in wheat (Johansson *et al.*), 275
Effects of *Crotalaria* and *Sesbania aculeate* green manures and N fertilizer on soil fertility and the productivity of sugarcane (Bokhtiar *et al.*), 305
The effect of organic and inorganic fertilizers on soil physical condition and the productivity of a rice–lentil cropping sequence in India (Sarkar *et al.*), 419

Fungicides
Effects of rate and timing of nitrogen fertilizer on disease control by fungicides in winter wheat. 1. Grain yield and foliar disease control (Olesen *et al.*), 1
Effects of rates and timing of nitrogen fertilizer on disease control by fungicides in winter wheat. 2. Crop growth and disease development (Olesen *et al.*), 15

Gait
Assessment of observer performance in a subjective scoring system: visual classification of the gait of cows (Engel *et al.*), 317

Genomic
Structural and functional relationships shown by genomic analysis of *Capra hircus* genes (Fadiel *et al.*), 235

Glucose
Effects of cold exposure and time relative to feeding on glucose metabolism of sheep using a glucose clamp approach (Takebayashi *et al.*), 335

Goats
The effect of rumen protozoa on the urinary excretion of purine derivatives in goats (Fujihara *et al.*), 101
Urinary excretion and blood plasma allantoin in lambs and young goats starved and refed with a purine-free diet (Fujihara *et al.*), 107
The impact of controlled breeding on milk production in pastoral goats in northern Kenya: an application of polynomial growth curve fitting (Hary), 357
The ability of faecal nitrogen to predict digestibility for goats and sheep fed with tropical herbage (Boval *et al.*), 443

Grasses
Breeding white clover for increased ability to compete with associated grasses (Annicchiarico), 255

Grazing
The ability of sheep at different stocking rates to maintain the quality and quantity of their diet during the grazing season (Garcia *et al.*), 113
Persistence of differences between sheep in methane emission under generous grazing conditions (Pinares-Paniño *et al.*), 227

Growth
Effects of rates and timing of nitrogen fertilizer on disease control by fungicides in winter wheat. 2. Crop growth and disease development (Olesen *et al.*), 15
A comparative evaluation of functions for the analysis of growth in male broilers (Darmani Kuhi *et al.*), 451

Growth regulator
The influence of variety, year, disease control and plant growth regulator application on crop damage, yield and quality of winter oats (*Avena sativa*) (White *et al.*), 31

Horses
The role of incisors in selective grazing by cattle and horses (Hongo and Akimoto), 469

Incisors
The role of incisors in selective grazing by cattle and horses (Hongo and Akimoto), 469

Inorganic
The effect of organic and inorganic fertilizers on soil physical condition and the productivity of a rice–lentil cropping sequence in India (Sarkar *et al.*), 419

Lambs
Urinary excretion and blood plasma allantoin in lambs and young goats starved and refed with a purine-free diet (Fujihara *et al.*), 107

Lentil
Acetolactate synthase activity and chlorsulfuron sensitivity of gamma-irradiated lentil (*Lens culinaris* Medik) cultivars (Malkawi *et al.*), 83
The effect of organic and inorganic fertilizers on soil physical condition and the productivity of a rice–lentil cropping sequence in India (Sarkar *et al.*), 419

Lime
A glasshouse evaluation of the comparative effects of organic amendments, lime and phosphate on alleviation of Al toxicity and P deficiency in an Oxisol (Mokolobate and Haynes), 409

Linseed
Association of linseed characters and its variability in different environments (Adugna and Labuschagne) 285
Cluster and canonical variate analyses in multilocation trials of linseed (Adugna and Labuschagne) 297

Litter
Nitrogen value of poultry litter applications to root crops and following cereal crops (Nicholson *et al.*), 53

Lodging
Analysis of crop lodging using a latent variable model (Allcroft and Glasbey), 383

Lucerne hay
Rumen function and digestion parameters associated with differences between sheep in methane emissions when fed chaffed Lucerne hay (Pinares-Paniño *et al.*), 205
Methane emission by alpaca and sheep fed on Lucerne hay or grazed on pastures of perennial ryegrass/white clover or birdsfoot trefoil (Pinares-Paniño *et al.*), 215

Maize
Yield stability of cassava, maize, soybean and cowpea intercrops (Dapaah *et al.*), 73
Contributions of an alley cropping system and arbuscular mycorrhizal fungi to maize productivity under cassava intercrop in the derived savannah zone (Oyetunji *et al.*), 311

Manure
Substitution of inorganic fertilizers by organic manures and the effect on soil fertility in a rice-wheat rotation on reclaimed sodic soil in India (Yaduvanshi), 161
Nitrogen fertilizer replacement value of sewage sludge, composted household waste and farmyard manure (Petersen), 169
Effects of *Crotalaria* and *Sesbania aculeate* green manures and N fertilizer on soil fertility and the productivity of sugarcane (Bokhtiar *et al.*), 305

Methane
Rumen function and digestion parameters associated with differences between sheep in methane emissions when fed chaffed Lucerne hay (Pinares-Paniño *et al.*), 205

Methane emission by alpaca and sheep fed on Lucerne hay or grazed on pastures of perennial ryegrass/white clover or birdsfoot trefoil (Pinares-Paniño *et al.*), 215

Persistence of differences between sheep in methane emission under generous grazing conditions (Pinares-Paniño *et al.*), 227

Milk

The impact of controlled breeding on milk production in pastoral goats in northern Kenya: an application of polynomial growth curve fitting (Hary), 357

Model

Analysis of crop lodging using a latent variable model (Allcroft and Glasbey), 383

Morphological

Variation in morphological traits in *Phaseolus vulgaris* L. from northern Spain (Flores *et al.*), 435

N-alkane

Effects of faecal n-alkane recovery in estimates of diet composition (Brosh *et al.*), 93

Near-infrared reflectance spectroscopy

The potential of near-infrared reflectance spectroscopy to analyse soil chemical and physical characteristics (Cozzolino and Morón), 65

Nitrogen

Nitrogen value of poultry litter applications to root crops and following cereal crops (Nicholson *et al.*), 53

Long-term performance of white clover varieties grown with perennial ryegrass under rotational grazing by sheep with different nitrogen applications (Williams *et al.*), 151

Nitrogen fertilizer replacement value of sewage sludge, composted household waste and farmyard manure (Petersen), 169

Dietary effects on the composition of pig slurry and on the plant utilization of pig slurry nitrogen (Sørensen and Fernández), 343

The effects of triazole and strobilurin fungicide programmes on nitrogen uptake, partitioning, remobilization and grain N accumulation in winter wheat cultivars (Ruske *et al.*), 395

The ability of faecal nitrogen to predict digestibility for goats and sheep fed with tropical herbage (Boval *et al.*), 443

Oats

The influence of variety, year, disease control and plant growth regulator application on crop damage, yield and quality of winter oats (*Avena sativa*) (White *et al.*), 31

Organic

Substitution of inorganic fertilizers by organic manures and the effect on soil fertility in a rice–wheat rotation on reclaimed sodic soil in India (Yaduvanshi), 161

The effect of organic and inorganic fertilizers on soil physical condition and the productivity of a rice–lentil cropping sequence in India (Sarkar *et al.*), 419

Oxisol

A glasshouse evaluation of the comparative effects of organic amendments, lime and phosphate on alleviation of Al toxicity and P deficiency in an Oxisol (Mokolobate and Haynes), 409

Perennial

Progress in breeding perennial forage grasses for temperate agriculture (Wilkins and Humphreys), 129

Perennial ryegrass

Long-term performance of white clover varieties grown with perennial ryegrass under rotational grazing by sheep with different nitrogen applications (Williams *et al.*), 151

Methane emission by alpaca and sheep fed on Lucerne hay or grazed on pastures of perennial ryegrass/white clover or birdsfoot trefoil (Pinares-Paniño *et al.*), 215

Phaseolus vulgaris

Variation in morphological traits in *Phaseolus vulgaris* L. from northern Spain (Flores *et al.*), 435

Phosphate

A glasshouse evaluation of the comparative effects of organic amendments, lime and phosphate on alleviation of Al toxicity and P deficiency in an Oxisol (Mokolobate and Haynes), 409

Phosphorus

Effectiveness of the water-insoluble component of triple superphosphate for yield and phosphorus uptake by plants (Johnston and Richards), 267

Photoperiod

Effect of two opposing changes in photoperiod upon age at first egg in layer-hybrid pullets (Lewis *et al.*), 373

Pig

Dietary effects on the composition of pig slurry and on the plant utilization of pig slurry nitrogen (Sørensen and Fernández), 343

Plasma

Urinary excretion and blood plasma allantoin in lambs and young goats starved and refed with a purine-free diet (Fujihara *et al.*), 107

Pod

Pod shatter resistance in the resynthesized *Brassica napus* line DK142 (Summers *et al.*), 43

Poultry

Nitrogen value of poultry litter applications to root crops and following cereal crops (Nicholson *et al.*), 53

Protein

Influences of cultivar, cultivation year and fertilizer rate on amount of protein groups and amount and size distribution of mono- and polymeric proteins in wheat (Johansson *et al.*), 275

Protozoa

The effect of rumen protozoa on the urinary excretion of purine derivatives in goats (Fujihara *et al.*), 101

Pullets

Effect of two opposing changes in photoperiod upon age at first egg in layer-hybrid pullets (Lewis *et al.*), 373

Purine

The effect of rumen protozoa on the urinary excretion of purine derivatives in goats (Fujihara *et al.*), 101

Urinary excretion and blood plasma allantoin in lambs and young goats starved and refed with a purine-free diet (Fujihara *et al.*), 107

Rice

The effect of organic and inorganic fertilizers on soil physical condition and the productivity of a rice–lentil cropping sequence in India (Sarkar *et al.*), 419

Rice straw

Effect of silica content on rice straw ruminal degradation (Agbagla-Dohnani *et al.*), 183

Rumen

The effect of rumen protozoa on the urinary excretion of purine derivatives in goats (Fujihara *et al.*), 101

Rumen function and digestion parameters associated with differences between sheep in methane emissions when fed chaffed Lucerne hay (Pinares-Paniño *et al.*), 205

Sahel
Seasonal variations in gastrointestinal tract fill of grazing Zebu cattle in the Sahel (Schlecht *et al.*), 461

Savannah
Contributions of an alley cropping system and arbuscular mycorrhizal fungi to maize productivity under cassava intercrop in the derived savannah zone (Oyetunji *et al.*), 311

Selection
Effect of three environments on the efficiency of indirect selection in *Eragrostis curvula* (lovegrass) genotypes (Di Renzo *et al.*), 427

Sesbania aculeate
Effects of *Crotalaria* and *Sesbania aculeate* green manures and N fertilizer on soil fertility and the productivity of sugarcane (Bokhtiar *et al.*), 305

Sewage
Nitrogen fertilizer replacement value of sewage sludge, composted household waste and farmyard manure (Petersen), 169

Sheep
The ability of sheep at different stocking rates to maintain the quality and quantity of their diet during the grazing season (Garcia *et al.*), 113
Long-term performance of white clover varieties grown with perennial ryegrass under rotational grazing by sheep with different nitrogen applications (Williams *et al.*), 151
Rumen function and digestion parameters associated with differences between sheep in methane emissions when fed chaffed Lucerne hay (Pinares-Paniño *et al.*), 205
Methane emission by alpaca and sheep fed on Lucerne hay or grazed on pastures of perennial ryegrass/white clover or birdsfoot trefoil (Pinares-Paniño *et al.*), 215
Persistence of differences between sheep in methane emission under generous grazing conditions (Pinares-Paniño *et al.*), 227
Effects of cold exposure and time relative to feeding on glucose metabolism of sheep using a glucose clamp approach (Takebayashi *et al.*), 335
The ability of faecal nitrogen to predict digestibility for goats and sheep fed with tropical herbage (Boval *et al.*), 443

Silica
Effect of silica content on rice straw ruminal degradation (Agbagla-Dohnani *et al.*), 183

Slurry
Dietary effects on the composition of pig slurry and on the plant utilization of pig slurry nitrogen (Sørensen and Fernández), 343

Soil
The potential of near-infrared reflectance spectroscopy to analyse soil chemical and physical characteristics (Cozzolino and Morón), 65
Substitution of inorganic fertilizers by organic manures and the effect on soil fertility in a rice–wheat rotation on reclaimed sodic soil in India (Yaduvanshi), 161
Effects of *Crotalaria* and *Sesbania aculeate* green manures and N fertilizer on soil fertility and the productivity of sugarcane (Bokhtiar *et al.*), 305
The effect of organic and inorganic fertilizers on soil physical condition and the productivity of a rice–lentil cropping sequence in India (Sarkar *et al.*), 419

Soybean
Yield stability of cassava, maize, soybean and cowpea intercrops (Dapaah *et al.*), 73

Stocking rates
The ability of sheep at different stocking rates to maintain the quality and quantity of their diet during the grazing season (Garcia *et al.*), 113

Strobilurin
The effects of triazole and strobilurin fungicide programmes on nitrogen uptake, partitioning, remobilization and grain N accumulation in winter wheat cultivars (Ruske *et al.*), 395

Sugarcane
Effects of *Crotalaria* and *Sesbania aculeate* green manures and N fertilizer on soil fertility and the productivity of sugarcane (Bokhtiar *et al.*), 305

Superphosphate
Effectiveness of the water-insoluble component of triple superphosphate for yield and phosphorus uptake by plants (Johnston and Richards), 267

Temperate
Progress in breeding perennial forage grasses for temperate agriculture (Wilkins and Humphreys), 129

Toxicity
A glasshouse evaluation of the comparative effects of organic amendments, lime and phosphate on alleviation of Al toxicity and P deficiency in an Oxisol (Mokolobate and Haynes), 409

Triazole
The effects of triazole and strobilurin fungicide programmes on nitrogen uptake, partitioning, remobilization and grain N accumulation in winter wheat cultivars (Ruske *et al.*), 395

Urinary
The effect of rumen protozoa on the urinary excretion of purine derivatives in goats (Fujihara *et al.*), 101

Variety
The influence of variety, year, disease control and plant growth regulator application on crop damage, yield and quality of winter oats (*Avena sativa*) (White *et al.*), 31

Wheat
Effects of rate and timing of nitrogen fertilizer on disease control by fungicides in winter wheat. 1. Grain yield and foliar disease control (Olesen *et al.*), 1
Effects of rates and timing of nitrogen fertilizer on disease control by fungicides in winter wheat. 2. Crop growth and disease development (Olesen *et al.*), 15
Elevated growth redundancy and size inequality in spring wheat populations mulched with clear plastic film (Pan *et al.*), 193
Influences of cultivar, cultivation year and fertilizer rate on amount of protein groups and amount and size distribution of mono- and polymeric proteins in wheat (Johansson *et al.*), 275
The effects of triazole and strobilurin fungicide programmes on nitrogen uptake, partitioning, remobilization and grain N accumulation in winter wheat cultivars (Ruske *et al.*), 395